

answers²

EasyGuide

AMILO A Series

English



FUJITSU COMPUTERS
SIEMENS

Are there ...

... any technical problems or other questions which you would like to be clarified?

Please contact:

- your sales partner
- your sales outlet

Additional information is provided on the Help Desk list and in the "Warranty" manual (the "Warranty" manual is included on the "Drivers & Utilities" CD provided).

The latest information on our products, tips, updates, etc., can be found on the internet under:

<http://www.fujitsu-siemens.com>

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Published by
Fujitsu Siemens Computers GmbH

Order No.: **10600416171**

Order No.: **440 N50203**

Printed in the Federal Republic of Germany

AG 0404 04/04

AMILO A Series

Operating manual

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April 2004 edition

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Innovative technology ...

and ergonomic design make your AMILO A the ideal user-friendly and reliable notebook. Your operating system is preinstalled on the hard disk and optimally configured to facilitate the procedure when you use your AMILO for the first time.

A PC card slot (CardBus or PCMCIA) enables the notebook to operate one type I or type II PC card. Your notebook is equipped with an internal modem. In addition, your notebook is equipped with a S Video out socket to connect to a television. External devices such as digital audio/video devices or other high-speed devices can be connected to the FireWire port.

For mouse control, the notebook has a touchpad.

Your notebook has connectors for external devices such as an external monitor or a printer. You can connect peripheral devices such as a scanner, loudspeakers, gamepads, keyboard, or mouse via three USB ports (2.0).

An audio controller and two internal loudspeakers provide your AMILO with an audio capability. You can also connect an external microphone and an external loudspeaker.

The system settings of the notebook can be configured via the user-friendly *BIOS Setup Utility* programme. Certain system settings (e.g. screen display, energy saving functions) can be modified via various key combinations while you are using the notebook.

Your AMILO has a number of security features to ensure that no unauthorised person can access your data. For example, you can activate a screen saver with password protection. The security functions in the *BIOS Setup Utility* also allow you to protect your data by means of passwords.

This operating manual tells you how to put your AMILO into operation, and how to operate it in daily use.

Further information about your AMILO can be found:

- in the manuals "Safety and Ergonomics", "Warranty" and "Wireless LAN"
- in your operating system documentation
- in the information files (e.g. *.TXT, *.DOC, *.WRI, *.HLP, *.PDF)

Notational conventions

The following symbols are used in this manual:



Indicates information which is important for your health or for preventing physical damage. Failure to follow the instructions may lead to loss of data, invalidate your warranty, destroy the notebook, or endanger your life.



Indicates important information which is required to use the system properly.



Text which follows this symbol describes activities that must be performed in the order shown.

This font

indicates screen outputs.

This font

indicates programme names, commands, or menu items.

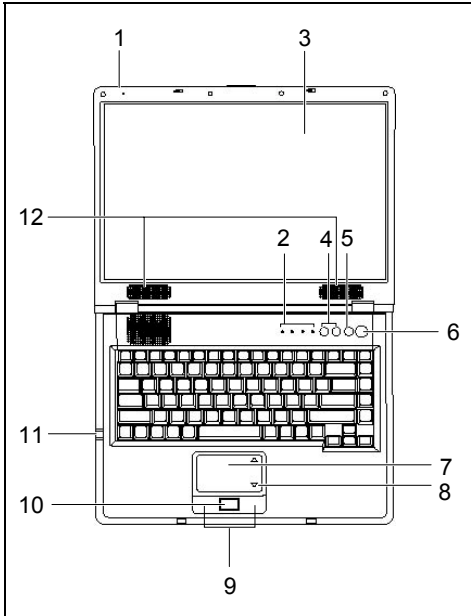
"Quotation marks"

indicate names of chapters, data carriers, and terms that are being emphasised.

Notebook views

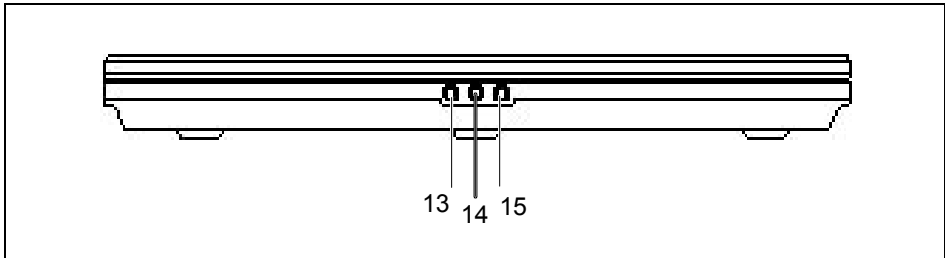
This chapter presents the individual hardware components of your notebook. You can open an overview of the displays and connections of the notebook. Please familiarise yourself with these components before you start to work with your notebook.

Opened Notebook



- 1 = Built-in microphone
- 2 = Status indicators
- 3 = LCD screen
- 4 = Easy Launch keys
- 5 = On/Off switch for Wireless LAN
- 6 = ON/OFF switch of the Notebook with power-on indicator
- 7 = Touchpad
- 8 = Touchpad scroll bar
- 9 = Touchpad buttons
- 10 = Touchpad scroll buttons
- 11 = Status indicators
- 12 = Built-in loudspeakers

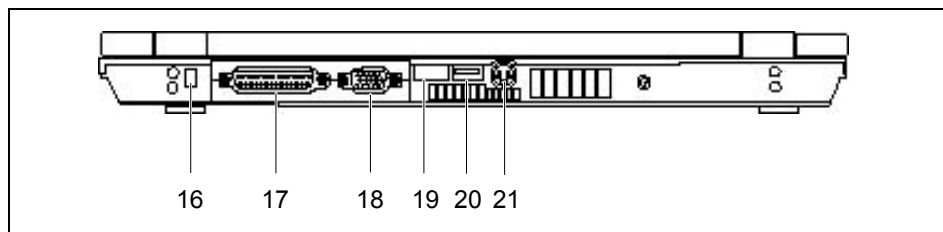
Front



- 13 = SPDIF Out/Headphones socket
- 14 = Line In

- 15 = Microphone jack

Back panel



16 = Kensington Lock device

17 = Parallel port

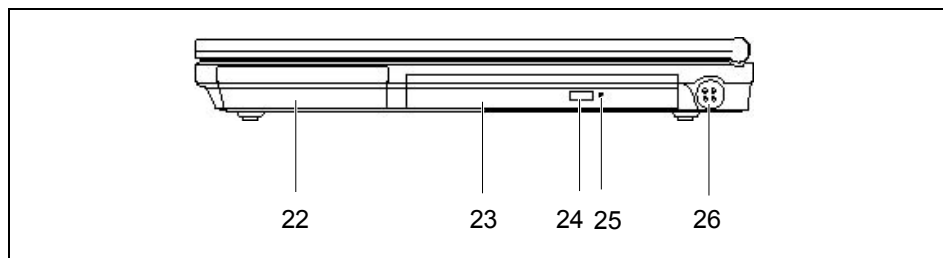
18 = Monitor port

19 = Infrared interface

20 = USB port

21 = S-Video out

Right side panel



22 = Battery compartment

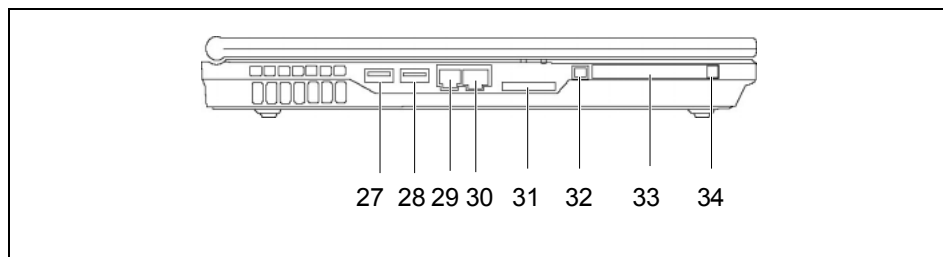
23 = Optical drive

24 = Insert/Eject button

25 = Opening for manual ejection

26 = DC jack (DC IN)

Left side panel



27 = USB port

28 = USB port

29 = Modem port

30 = LAN connector

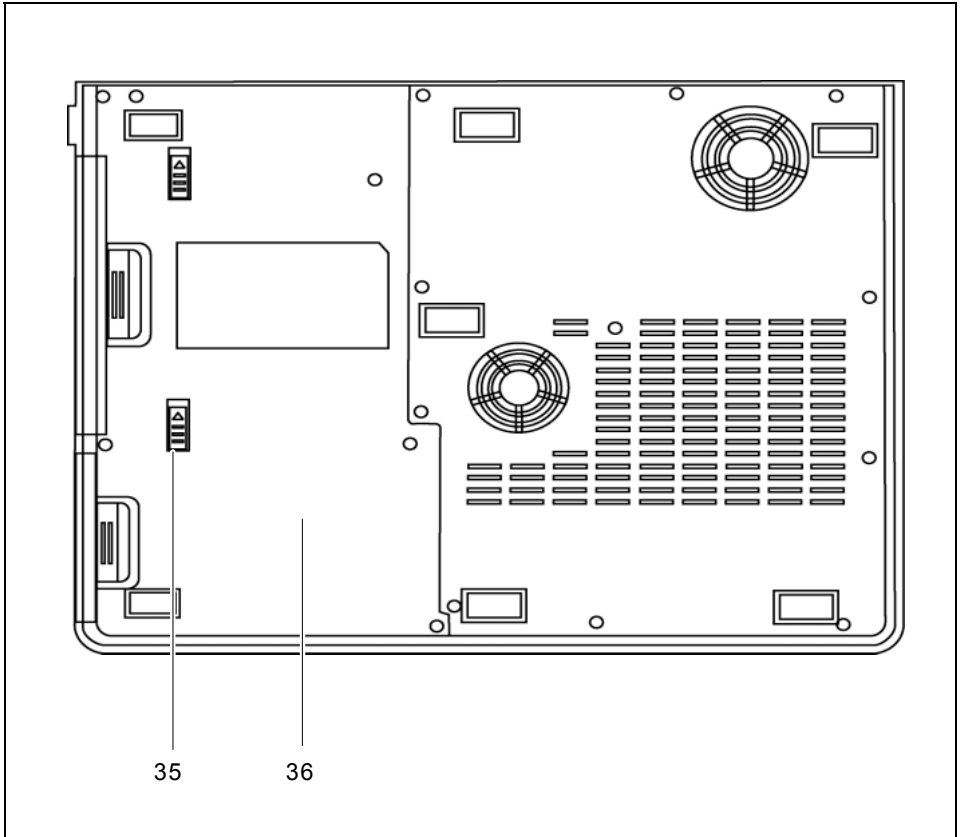
31 = Memory card reader

32 = FireWire port

33 = PC card slot

34 = PC card eject button

Under side



35 = Battery release latch

36 = Battery compartment

Important notes

Here you will find essential safety information regarding your notebook. In addition, the manufacturer's notes contain helpful information about your notebook.

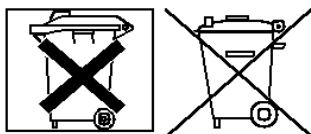
Safety notes



Pay attention to the information provided in the "Safety and Ergonomics" manual and in the following safety notes.

Observe the sections in the manual marked with the symbol on the left.

- When connecting and disconnecting cables, observe the relevant notes in this operating manual.
- Only use batteries designed for this notebook.
Do not store batteries for longer periods in the notebook.
Take care not to drop the batteries or otherwise damage their casing (fire risk).
If the rechargeable batteries are defective, they must not be used.
Do not touch the contacts of the batteries.
Never interconnect the positive and negative terminals of a battery.
Used batteries must be disposed of in accordance with local regulations (special waste).
- There is a lithium battery (button cell) installed in the notebook for real-time buffering:
The lithium battery may only be replaced by authorised, specially trained personnel. Incorrect handling may lead to a risk of explosion.
The lithium battery may be replaced only with an identical battery or with a type recommended by the manufacturer.
The lithium battery must be disposed of in accordance with local regulations concerning special waste.
- All batteries containing pollutants are marked with one of the two symbols below (crossed-out garbage can).



In addition, the marking is provided with the chemical symbol of the heavy metal decisive for the classification as a pollutant.

Cd Cadmium
Hg Mercury
Pb Lead

Important notes

- During installation and before operating the device, please observe the instructions on environmental conditions in the "Technical data" chapter as well as the instructions in the "Preparing the notebook for use" chapter.
- When cleaning the device, please observe the relevant notes in the "Cleaning the notebook" paragraph.
- Keep this operating manual together with your device.
If you pass on the device to third parties, you should include this manual.
- If you have a device with wireless LAN, you must also observe the additional safety precautions for devices with wireless LAN in the "Safety and Ergonomics" manual.

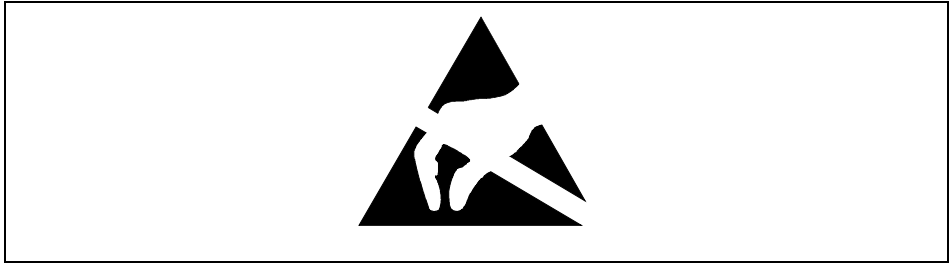
This notebook complies with the relevant safety regulations for data processing equipment. If you have questions as to whether you can set up the notebook in the intended environment, please contact your sales point or our hotline/help desk.

Notes on installing and removing boards and modules



Only qualified technicians should repair the device. Unauthorised opening or incorrect repair may greatly endanger the user (electric shock, fire risk).

Boards with electrostatic sensitive devices (ESD) are identifiable by the label shown.



When you handle boards fitted with ESDs, you must, under all circumstances, observe the following points:

- You must statically discharge yourself before working with boards (e.g. by touching a grounded object).
- The equipment and tools you use must be free of static charges.
- Remove the power plug from the mains supply before inserting or removing boards containing ESDs.
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

Manufacturer's notes

Declarations of Conformity

The "Declarations of Conformity" concerning the AMILO A can be found at our internet address:
<http://www.driver-cd.com>.

Hereby, Fujitsu Siemens Computers, declares that the AMILO A is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Copyright-protected technology

This product incorporates copyright protection technology that is protected by method claims of certain U. S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorised by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorised by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Energy saving

If you will not be using your notebook, switch it off.

Make use of the device's energy saving functions (see "Working with the notebook"). The notebook uses less power when the power management features are enabled. You will then be able to work for longer before having to recharge the battery.

Energy saving under Windows

If a monitor with energy saving features is connected to your notebook, you can use the *Screen Saver* tab to activate the energy saving features of the monitor. Select a screen saver in the menu *Start - Control Panel - Appearance and Themes - Display - Screen Saver*.

You may set further energy saving functions in the menu *Start - Control Panel - Performance and Maintenance - Power Options*.



There is no need for a screen saver for the LCD panel since the LCD screen is turned off via the energy saving functions.

Recycling and disposal

Do not throw batteries or accumulators into the household waste.

Our devices are mostly produced of materials that can be turned over for proper recycling. The device may be taken back after use to be recycled, provided that it is returned in a condition that is the result of normal use. Any components not reclaimed will be disposed of in an environmentally acceptable manner. To give back a device please take advantage of your country's disposal and recycling possibilities.

Further information about country-specific disposal and recycling possibilities can be found on the following website www.fujitsu-siemens.com/recycling.

If you have any questions on disposal, please contact your local office or our Help Desk.

CE marking



CE marking for devices with wireless LAN

This equipment complies with the requirements of Directive 1999/5/EC of the European Parliament and Commission from 9 March, 1999 governing Radio and Telecommunications Equipment and mutual recognition of conformity.

This notebook is approved for use in Belgium, Denmark, Germany, Finland, Greece, Great Britain, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Sweden, Switzerland, Spain, Iceland, Liechtenstein and Norway. Contact the corresponding government office of the respective country for current information on possible operating restrictions. If your country is not included in the list, then please contact the corresponding supervisory authority as to whether the use of this product is permitted in your country.

Restrictions

- France
 - Limited frequency range: only the channels 10 and 11 (2457 MHz or 2462 MHz) may be used in France. It is prohibited to use the device outdoors.
- Italy
 - A ministerial permit is also required for use indoors. Please contact the seller concerning the required procedure. It is prohibited to use the device outdoors.
- Netherlands
 - A licence is required for use outdoors. Please contact the seller concerning the required procedure.

Battery storage

If you do not use the batteries for long periods, remove them from the notebook. Never store the batteries in the unit.

Store the battery when it is half full or two-thirds full. The battery should be stored in a dry area at a temperature between 0°C and +30°C. The lower the temperature at which the batteries are stored, the lower is the rate of self-discharge.

Transporting the notebook

Please observe the points listed below when transporting your notebook.

Before you travel

- Back up important data stored on your hard disk.
- If you wish to use your notebook during a flight, first check with the flight attendants if it is permissible to do so.
- If you are travelling abroad, ensure that the power adapter can be operated with the local mains voltage. If this is not the case, obtain the appropriate power adapter for your notebook. Do not use any other voltage converter!



If you travel in another country, check whether the local power supply and the specifications of the power cable are compatible. If this is not the case, buy a power cable that matches the local conditions. Do not use a connection adapter for electrical devices to connect the notebook.

If you use a modem, incompatibilities with the local telecommunications system may result.

Transporting the notebook

- Remove all data carriers (e.g. CD, DVD) from the drives.
- Switch the notebook off.
- Unplug the power adapter and all external devices from the mains outlet.
- Disconnect the power adapter cable and the data cables for all external devices.
- Close the LCD screen so that it locks into place.
- To protect against damaging jolts and bumps, use a notebook carrying case to transport your notebook.
- Protect the notebook from severe shocks and extreme temperatures (e.g. direct sunlight in a car).

Cleaning the notebook

- ▶ Switch the notebook off.
- ▶ Pull the power plug of the network adapter out of the mains outlet.
- ▶ Remove the battery.



Do not clean any interior parts yourself; leave this job to a service technician.

Do not use any cleaning agents that contain abrasives or may corrode plastic. The use of improper cleaning agents can damage the markings on the keyboard and the notebook, the paintwork of the device or the device itself.

Ensure that no liquid enters the notebook.

Wipe the casing with a dry cloth.

If particularly dirty, use a cloth which has been moistened in mild domestic detergent and then carefully wrung out.

To clean the keyboard and the touchpad, you can use disinfectant wipes.

Preparing the notebook for use



Please read the "Important notes" chapter.

Before you can work with your notebook, you need to charge the battery and install and configure the delivered software. The operating system and drivers required are preinstalled.

Upon delivery, the battery can be found in the battery compartment. You need to charge the battery if you want to operate your notebook with a rechargeable battery.

When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase the battery's life by enabling the system's energy saving functions.

If you use the notebook in a normal office situation, run it from the mains using the power adapter.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a mouse and a printer to the notebook.

Unpacking and checking the delivery

- Unpack all the individual parts.
- Check the delivery for damage incurred during transportation.



Should you discover damages incurred during transportation, notify your local sales outlet immediately!



It is recommended not to throw away the original packaging material. Keep the original packing material in case you need to ship the equipment again.

Selecting a location

Select a suitable location for the notebook before setting it up. Consider the following points when looking for a location:

- Do not place it on a soft surface (e.g., a carpet or soft furnishings). The space between the notebook's feet must be clear.
Place the notebook on a stable, flat, nonslippery surface. In view of the multitude of different finishes used on furniture, it is possible that the rubber feet of the notebook will mark the surface they stand on.
- Never place the notebook and the power adapter on a heat-sensitive surface.
- The notebook and the power adapter should be at least 200 mm apart.
- Keep other objects 100 mm away from the notebook and its power adapter to ensure adequate ventilation.
- Never cover the fan intake or exhaust openings of the notebook or the power adapter.
- Do not expose the notebook to extreme environmental conditions.
Protect the notebook from dust, humidity, and heat.
- For wireless data transfer, you must align the notebook's infrared interface with that of the partner device (e.g. PC). The devices must not be more than one metre apart.

Connecting the power adapter



Please take note of the information in the section "Safety notes".

The power cable supplied conforms to the requirements of the country in which you purchased your notebook. Make sure that the power cable is approved for use in the country in which you intend to use it.

The power adapter's AC cord should only be connected to a mains outlet if the notebook is connected to the power adapter.

Do not use the power adapter for other notebooks or devices.

Do not use a power adapter that is not specially intended for this notebook.

- ▶ Connect the power adapter cable to the DC jack (DC IN) of the notebook (see chapter "Notebook views", Number 26).
- ▶ Connect the power cable into the power adapter.
- ▶ Plug the power cable into a mains outlet.

Working with the notebook

This chapter describes the basics for operating your notebook.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a mouse and a printer to the notebook.

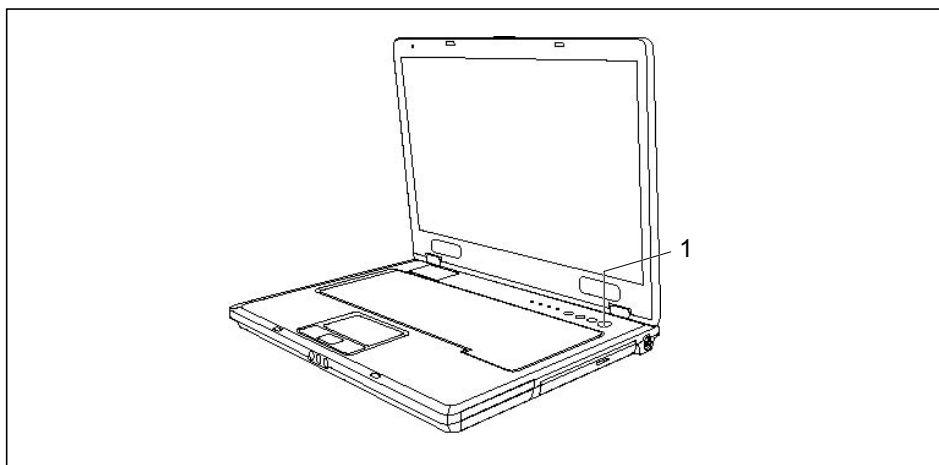


Please take note of the information in the "Important notes" chapter.

Switching the notebook on and off

Switching on the notebook

- Slide the release (on front of notebook) to the right and fold up the LCD screen.



- Press the ON/OFF switch (1) to switch the notebook on.

The power-on indicator (1) of the notebook lights up.



If you have assigned a password, you must enter this when requested to do so, in order to start the operating system password.

Switching the notebook off

- ▶ Shut down the operating system properly in the *Start* menu via the *Quit* function.
- ▶ If the notebook is not switched off automatically, press the ON/OFF switch for approx. four seconds.
- ▶ Close the LCD screen so that it locks into place.

Status indicators

The status indicators (see chapter "Notebook views", Numbers 2, 6 and 11) provide information on the states of the power supply, the drives and the keyboard functions.

The meanings of the symbols are as follows:



Power-on indicator

The indicator lights up when the notebook is switched on. The power-on indicator is integrated into the notebook ON/OFF switch.



Indicator drive

The indicator flashes when the CD/DVD in the optical drive is being accessed.



Num Lock indicator

The indicator lights up when the **Num** key has been pressed. The numbers on the upper right on keys in the integrated numeric keypad are enabled.



Caps Lock indicator

The indicator lights up when the caps lock key has been pressed. All the characters you type appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Scroll indicator (Scroll Lock)

The indicator lights up when the **Scroll Lock** has been pressed. The effect this key has varies from programme to programme.



Energy-saving mode indicator

The indicator flashes when the notebook is in an energy-saving mode. This indicator is also visible with the notebook closed.



Battery indicator

- The indicator lights when the battery is fully charged or in use.
- The indicator flashes while the battery being charged.
- The indicator is extinguished when the notebook is disconnected from the mains power.

This indicator is also visible with the notebook closed.

Keyboard

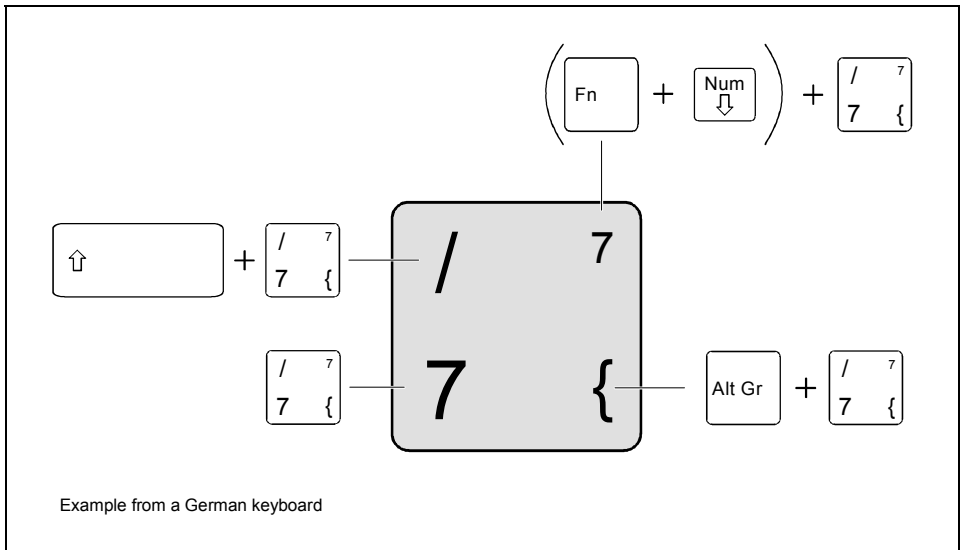


The keyboard of your notebook is subject to continuous wear due to normal use. The keyboard markings are subjected to particularly high loads. The keyboard markings can wear off in the course of using the notebook.

The keyboard has been designed to provide all the functions of an enhanced keyboard. Some enhanced keyboard functions are mapped with key combinations.

The following description of keys refers to Windows. Additional functions supported by the keys are described in the relevant manuals supplied with your application programmes.

The figure below shows how to access the different characters on keys with overlaid functions. The example applies when the CapsLK indicator is not lit.



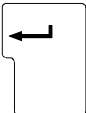
Backspace key

The Backspace key deletes the character to the left of the cursor.



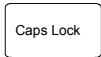
Tab key

The Tab key moves the cursor to the next tab stop.



Enter key (return)

The enter key terminates a command line. The command you have entered is executed when you press this key.



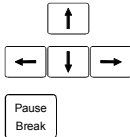
Caps Lock key
The Caps Lock key activates uppercase mode (CapsLK indicator lit). The Caps Lock function causes all the characters you type to appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.
To cancel the Caps Lock function, simply press the Caps Lock key again.



Shift key
The Shift key causes uppercase characters to appear. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Fn key
The **[Fn]** key enables the special functions indicated on overlay keys (see "Key combinations").
If the external keyboard does not feature a **[Fn]** key, you can simultaneously press the **[Ctrl]** + **[Alt]** keys instead.



Cursor keys
The cursor keys move the cursor in the direction of the arrow, i.e. up, down, left, or right.



Pause key
The **[Pause]** key temporarily suspends display output. Output will resume when you press any other key.

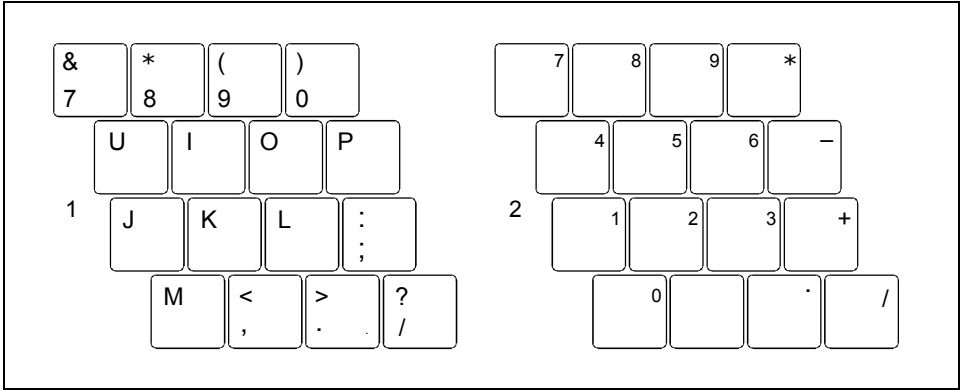


Start key
The Start key invokes the Windows Start menu.



Menu key
The Menu key invokes the menu for the marked item.

Numeric keypad



1 = Characters enabled when NumLK indicator is not lit (see "Status indicators").
2 = Characters enabled when NumLK indicator is lit (see "Status indicators").
When the numeric keypad is turned on (NumLK is indicated) you can output the symbols on the upper right on the keys.

Key combinations

The following description of key combinations refers to functions when using Microsoft Windows. Some of the following key combinations may not function in other operating systems and with some device drivers.

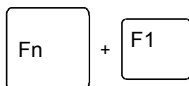
Other key combinations are described in the relevant manuals supplied with your application programmes.

Key combinations are performed as follows:

- ▶ Press and hold the first key in the combination.
- ▶ While holding the first key down, press the other key or keys in the combination.

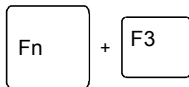


If the external keyboard does not feature a **Fn** key, you can simultaneously press the **Ctrl** + **Alt** keys instead.



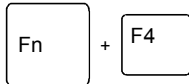
Enabling Suspend mode

This key combination switches the notebook into the Suspend mode.



Switching battery warning tone off/on

With this key combination you can set whether the notebook outputs a warning tone when the battery charge level is low.

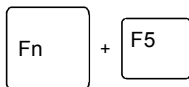


Switching between internal and external screen

If an external monitor is connected, the monitor on which the output is to be displayed can be selected with this key combination.

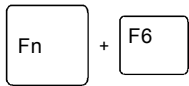
You can opt to use:

- just the notebook's LCD screen
- just the external monitor
- both the LCD screen and the external monitor.



Increasing the volume

This key combination raises the volume of the integrated loudspeakers.



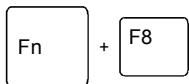
Reducing the volume

This key combination reduces the volume of the integrated loudspeakers.



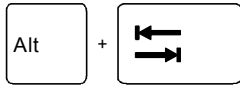
Increasing screen brightness

This key combination increases screen brightness.



Decreasing screen brightness

This key combination decreases screen brightness.



Switching between open applications

With this key combination you can switch between several open applications.



Carrying out a warm boot

This key combination triggers a reset and warm-boots the notebook. First hold down the **Ctrl** and **Alt** key, and then press the **Del** key. First the Task Manager is displayed. Then you must press all three keys again to re-boot.



Backtab (Shift+Tab)

This key combination moves the cursor back to the previous tabular stop.



Key combinations with the Windows keys are contained in the manual for your operating system.

Easy Launch keys

Your notebook is equipped with two Easy Launch keys (see chapter "Notebook views", Number 4). You can start frequently required applications by pressing a single key.



E-mail

Use this button to start the standard e-mail programme for your system.



Internet

With this button you can start the standard internet browser for your system.

Touchpad and touchpad buttons



Keep the touchpad clean, protect it from dirt, liquids, and grease.

Do not use the touchpad if your fingers are dirty.

Do not rest heavy objects (e.g. books) on the touchpad or the touchpad buttons.

The touchpad (see chapter "Notebook views", Number 7) enables you to move the mouse pointer on the screen.

You can use the touchpad to scroll. The scroll bar on the right edge of the touchpad is marked with arrows (see chapter "Notebook views" Number 8).

The touchpad buttons (see chapter "Notebook views", Number 9) allow the selection and execution of commands. They correspond to the buttons on a conventional mouse.

With the touchpad scroll buttons (see chapter "Notebook views", Number 10) you can scroll.

Moving the pointer

- ▶ Move your finger on the touchpad.

The pointer will move accordingly.

Selecting an item

- ▶ Move the pointer to the item you wish to select.
- ▶ Tap the touchpad once or press the left button once.

The item will be selected.

Executing a command

- ▶ Move the pointer to the field you wish to select.
- ▶ Tap the touchpad twice or press the left button twice.

The command will be executed.

Dragging an object

- ▶ Activate only the function under *Start - Control Panel - Printers and other Hardware / Mouse*.
- ▶ Move the pointer to the item you wish to select.
- ▶ Select the desired object, and leave your finger on the touchpad.
- ▶ Drag the object to the desired position.
- ▶ Lift your finger from the touchpad.

The item will be moved.

Scrolling with the touchpad buttons

- Press the upper or lower side of the touchpad scroll button to scroll up or down.

The information/texts above or below the display area appear.

Scrolling with the touchpad scroll bar

- Move your finger upwards or downwards on the scroll bar at the right edge of the touchpad.

The display area moves up or down.

LCD screen

Information on LCD monitor

High-quality TFT displays are installed in notebooks from Fujitsu Siemens Computers GmbH. The specification of the monitor resolution indicates how many pixels can be displayed. For example, "XGA" stands for 1024 x 768 pixels. Each pixel consists of three so-called subpixels of the colours red, green and blue. As a result, an XGA monitor consists of $1024 \times 768 \times 3 = 2,359,296$ subpixels.

The standard of production techniques today cannot guarantee an absolutely fault-free monitor. A few isolated constant lit or unlit pixels may be present. To ensure the highest possible quality, Fujitsu Siemens Computers uses only monitors that at least comply with the standard DIN ISO 13406-2 (Class II).

TFT monitors are operated with background lighting. The luminosity of the background lighting can decrease during the period of use of the notebook. The brightness of your monitor can be set individually with the brightness control keys of the keyboard.

Monitor settings

Setting the desktop area

The screen resolution of the LCD monitor of your notebook is optimally set at the factory.

Changing the font size

Under *Start - Control Panel - Appearance and Themes - Display - Advanced* you can choose between a larger and a smaller font in the *Font size* field.

Synchronising the display on the LCD screen and an external monitor

Your notebook supports the simultaneous display on the LCD screen and an external monitor. Pressing the key combination **[Fn] + [F4]** switches between LCD only, external monitor and LCD and external monitor only. The last setting is useful if you would like high resolution and refresh rate on an external monitor.

Battery

The battery is one of the most important components of your notebook. When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase the life of the battery by caring for the battery properly. The average battery life is around 500 charge/discharge cycles. You can extend the battery life by taking advantage of the available energy saving functions.



Only use batteries released for your notebook.

Take care not to drop the batteries or otherwise damage their casing (fire risk).

If the rechargeable batteries are defective, they must not be used.

Do not touch the contacts of the batteries.

Never interconnect the positive and negative terminals of a battery.

Used batteries must be disposed of in accordance with local regulations (special waste).

Observe the information on battery storage in the "Important notes" chapter.

Charging, caring for and maintaining the battery

The notebook battery can only be charged, when the ambient temperature is between 5 °C and max. 35 °C.

You can charge the battery by connecting the notebook to the power adapter (see "Connecting the power adapter").

A notebook battery will fully charge in approximately three hours in a notebook that is switched off. A notebook battery will fully charge in approximately 4.5 hours if the notebook is switched on.

It is a good idea to discharge the battery completely before recharging it, as this will extend battery lifetime. Work in the battery mode until a warning tone indicates the need for charging. The notebook battery should not be charged before this point.

If you do not connect the power adapter within five minutes of the signals described above, your notebook will automatically switch off.

Monitoring the battery charging level

Windows also has a "Battery status meter" in the taskbar for monitoring the battery capacity. When you place the mouse pointer on the battery symbol, the system displays the battery status.

Removing and installing the battery



Only use batteries designed for this notebook.

Never use force when inserting or removing a battery.

Make sure that no foreign bodies get into the battery connections.

Removing battery

- ▶ Switch the notebook off.
- ▶ Close the LCD screen so that it locks into place.
- ▶ Unplug the power adapter from the mains outlet.
- ▶ Disconnect all cables connected to the notebook.
- ▶ Turn the notebook over.
- ▶ Place the notebook on a flat surface.
- ▶ Slide the battery lock (see chapter "Notebook views", Number 35) in the direction of the arrow and hold it in place.
The arrow is shown on the battery lock.
- ▶ Remove the battery from the battery compartment (see chapter "Notebook views", Number 36).

Inserting battery

- ▶ Push the battery into the battery compartment until it engages.
- ▶ Close the battery compartment.

Using the power-management features

The notebook uses less power when the power management features are enabled. You will then be able to work longer when using the battery before having to recharge it.



If you are connected to a network or use an integrated modem, PC LAN card, or PC modem card, we advise against enabling an energy saving mode. This could lead to an interruption of your network connection.

When not using the notebook for long periods of time, first end the energy saving mode, then switch off the notebook. Never switch off the notebook with the ON/OFF switch while the notebook is in one of the energy-saving modes.

If your notebook is in an energy-saving mode:

- Do not connect any external devices.
- Do not disconnect any external devices.
- Do not attempt to switch the notebook on if the built-in battery is flat.
- Do not add or remove RAM.
- Do not add or remove a PC card.

When you close the lid, the notebook automatically enters an energy-saving mode.

The energy saving functions can be activated under *Start - Control Panel - Performance and Maintenance - Power Options*. Under Windows, *Hibernate* is activated by default.

PC cards

A PC card slot (CardBus or PCMCIA) enables the notebook to operate one type I or type II PC card.



Consult the documentation supplied by the PC card's manufacturer and follow the instructions provided.

Never use force when inserting or removing a PC card.

Make sure that foreign objects do not fall into the PC card slot.

Installing a PC card

- ▶ Press the eject button (see chapter "Notebook views", Number 34). The placeholder for the PC card will project further out of the notebook's case.
- ▶ Pull the placeholder for the PC card out of the slot (see chapter "Notebook views", Number 33).



Keep the placeholder for the PC card in a safe place. When you remove the PC card you should also refit the placeholder for the PC card. Thus you prevent foreign objects from getting into the PC card slot.

- ▶ Insert the PC card end with the connector contacts into the card slot guide rails. The labelled side of the PC card must face upwards.
- ▶ Gently push the PC card into the slot until you feel it click into place.



Consult the documentation supplied with the PC card for information on how to install the necessary device drivers.

For further information refer to the information files (e.g. *.TXT, *.DOC, *.WRI or *.HLP) provided on the PC card driver diskette or the information in the operating system manual.

You can push the PC card slot eject button into the notebook casing. To do this, press the eject button until it engages.

Removing a PC card

Use the small PC card icon located in your task bar to stop the card:

- ▶ Click on the PC card icon in the task bar with the right mouse button.
- ▶ Select *PC card Properties*.
- ▶ Select the PC card and click on *Stop*.

Wait for the dialogue box which tells you that it is now safe to remove the PC card.

- ▶ Press the eject button. The PC card will project further out of the notebook's case. If the eject button is lowered, you must first cause the eject button to release from the notebook casing. To do this, press the eject button until it releases.
- ▶ Slide the PC card out of the notebook.
- ▶ Insert the placeholder for the PC card into the slot guide.
- ▶ Gently slide the placeholder for the PC card into the slot until you feel it click into place.

Memory card reader

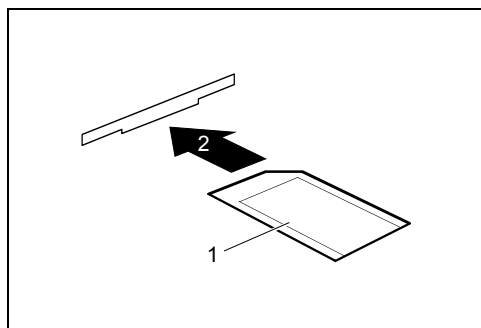
Your notebook is equipped with a memory card reader. Your memory card reader supports the following formats:

- Secure Digital
- MultiMediaCard
- Memory Stick

Using memory cards



Observe the manufacturer's information when using memory cards.



- 1 = Label area
- 2 = Insertion direction

Inserting memory card

- ▶ Depending on the memory card used, insert the memory card in the upper or lower slot guide with the connection contacts first (see chapter "Notebook views", Number 31).
- ▶ Carefully push the memory card into the slot.

Removing memory card

- ▶ Pull the memory card out of the slot.

Hard disk

The hard disk is the most important storage medium of your notebook. You can work considerably faster and more efficiently if you copy applications and files from CDs to your hard disk.

Optical drive

Your notebook is delivered with an optical drive. Depending on the variant, your notebook is equipped with a combo drive (CD-RW/DVD), a DVD+RW drive or a DVD±RW dual drive.

Optical drives can either only read or both read and write different optical data storage media. The meaning of the respective optical data storage media is described in the following:

CD-ROM

Abbreviation for **C**ompact **D**isc - **R**ead **O**nly **M**emory. A CD-ROM is an optical data storage medium that can contain a maximum of 700 Mbytes. These data cannot be changed.

CD-R

Abbreviation for **C**ompact **D**isc **R**ecordable. A CD-R is an optical data storage medium that can only be written with a maximum of 700 Mbytes of data. Then these data cannot be changed, but can be read as often as desired.

CD-RW

Abbreviation for **C**ompact **D**isc **R**eWriteable. A CD-RW is an optical data storage medium that can be written with a maximum of 700 Mbyte of data a virtually unlimited number of times. This means the data can be deleted and changed.

DVD (DVD-ROM and DVD video)

Abbreviation for **D**igital **V**ersatile **D**isc or **D**igital **V**ideo **D**isc. A DVD is an optical data storage medium that can contain a maximum of 17 Gbytes of data. These data cannot be changed.

DVD+R/DVD-R

Abbreviation for **D**igital **V**ersatile **D**isc **R**ecordable or **D**igital **V**ideo **D**isc **R**ecordable. A DVD+R or a DVD-R is an optical data storage medium that can only be written once with a maximum of 4.7 Gbytes of data. Then these data cannot be changed, but can be read as often as desired.



DVD+R and DVD-R are different standards. DVD+Rs and DVD-Rs can only be written by drives which support the respective standard.

DVD+RW/DVD-RW

Abbreviation for **D**igital **V**ersatile **D**isc or **D**igital **V**ideo **D**isc **R**e**W**riteable. A DVD+RW or a DVD-RW is an optical data storage medium that can be written with a maximum of 4.7 Gbytes of data virtually an unlimited number of times. This means the data can be deleted and changed.



DVD+RW and DVD-RW are different standards. DVD+RWs and DVD-RWs can only be written by drives which support the respective standard.

Combo drive (CD-RW/DVD)



The combo drive in your notebook contains a light-emitting diode (LED), classification as per IEC 825-1:1993: CLASS 1 LASER, and may therefore not be opened.

With the combo drive you can read all optical data storage media named above. You can also write CD-Rs and CD-RWs.

DVD+RW drive



The DVD+RW drive in your notebook contains a light-emitting diode (LED), classification as per IEC 825-1:1993: CLASS 1 LASER, and may therefore not be opened.

With the DVD+RW drive you can read all optical data storage media named above. You can also write CD-R, CD-RW and DVD+RW.

DVD±RW dual drive



The DVD±RW dual drive in your notebook contains a light-emitting diode (LED), classified in accordance with IEC 825-1:1993 as a CLASS 1 LASER, and may therefore not be opened.

With the DVD±RW dual drive you can read all optical data storage media named above. You can also write CD-Rs, CD-RWs, DVD+Rs, DVD+RWs, DVD-Rs and DVD-RWs.

Handling CD/DVDs

From this point all different optical data storage media will be referred to as CD/DVDs; the writeable optical data storage media are called blanks.



Observe the following when handling CD/DVDs:

- Avoid touching the surface of a CD/DVD. Handle CDs/DVDs only by their edges!
- Always store CDs/DVDs in their cases. Thus you avoid dust contamination, scratches, bending or other damage.
- Protect your CDs/DVDs from dust, mechanical vibration and direct sunlight!
- Avoid storing a CD/DVD in areas subject to high temperatures or humidity.



To utilise the optimum writing speed, use CD blanks marked "Multispeed" or "High Speed".

Handling CD/DVDs

From this point all different optical data storage media will be referred to as CD/DVDs; the writeable optical data storage media are called blanks.



Observe the following when handling CD/DVDs:

- Avoid touching the surface of a CD/DVD. Handle CDs/DVDs only by their edges!
- Always store CDs/DVDs in their cases. Thus you avoid dust contamination, scratches, bending or other damage.
- Protect your CDs/DVDs from dust, mechanical vibration and direct sunlight!
- Avoid storing a CD/DVD in areas subject to high temperatures or humidity.



To utilise the optimum writing speed, use CD blanks marked "Multispeed" or "High Speed".

Use only DVD blanks of the type DVD+RW. Other types of DVD blanks are not supported by your optical drive.

Inserting or removing a CD/DVD

The notebook must be switched on.

- Push the insert/eject button (see chapter "Notebook views", Number 24).

The drive tray will open.

- ▶ Pull the drive tray completely out.
- ▶ Place the CD/DVD in the drive tray with the label facing upwards.

or

- ▶ Take out an inserted CD/DVD.
- ▶ Push in the drive tray until you feel it lock into place.

Manual removal (emergency removal)

In the event of a power failure or damage to the drive it may be necessary to manually remove the CD/DVD.

- ▶ Switch the notebook off.
- ▶ Press a pen or a piece of wire (e.g. a paperclip) firmly into the opening (see chapter "Notebook views", Number 25).

The drive tray is unlocked. You can now pull the drive tray out of the drive.

Regional codes for DVD films and DVD players

DVD films and DVD players (e.g. the optical drive of your notebook) are always provided with a regional code. The regional codes of DVD films and DVD players must match so that the DVD film can be played back.

There are six different regional codes:

- Regional code 1: USA and Canada
- Regional code 2: Egypt, Europe, Japan, South Africa and the Middle East
- Regional code 3: Southeast Asia (including Hong Kong, Indonesia, Philippines, South Korea, Taiwan)
- Regional code 4: Australia, New Zealand, Southeastern Pacific, Central and South America and the Caribbean
- Regional code 5: Africa (except South Africa), India and the former states of the USSR
- Regional code 6: China

The optical drive of your notebook supports the function RPC-II (Phase II System of Regional Playback Control). This function permits the final user to change the regional code of the drive up to five times to play back corresponding DVD films. Then the last regional code selected is retained and cannot be changed again.



If a DVD film is to be playable in all regions, it has the regional code 0.

Before buying a DVD film you should check that the regional code of the DVD film matches the regional code set for the optical drive of your notebook.

Adjusting AutoPlay function of optical drive

With the AutoPlay function you can specify whether or not a program or action is to be run/carried out depending on the CD/DVD content type of Windows XP. For example, you can specify that when an Audio CD is inserted, the Media Player is automatically started and automatically plays the Audio CD.

You can set the AutoPlay function of the optical drive according to your needs. Proceed as follows:

- ▶ Click on the Start menu with the right mouse button or touchpad key.

A context menu appears.

- ▶ Click on *Explorer*.
- ▶ Click on the corresponding drive with the right mouse button or touchpad key.

A context menu appears.

- ▶ Click on *Properties*.
- ▶ Click on the *AutoPlay* tab.
- ▶ Adjust the AutoPlay function to meet your needs.



Please note that you must select the desired action and confirm it with *Apply* for each individual CD/DVD content type.

Audio: Setting volume

- ▶ To adjust the volume use the Windows volume control from the *Start* menu - *Programs* - *Accessories* - *Multimedia* - *Volume Control*.

Integrated 56k modem

The integrated 56k modem supports all data communication applications, such as:

- Modem operation: High-speed downloads at up to 56,000 bit/s (V.90). Downward-compatible to V.34 modems.
- Fax mode: Transmitting and receiving at up to 14,400 bit/s
- Simple country adaptation with programme

The modem complies with the EU Directive 91/263/EEC (Telecommunications terminal equipment directive) and has been checked in agreement with the guideline TBR-21.

The modem can be operated in the following countries:

Multifrequency (MFC) dialling

Belgium, Denmark, Germany, Finland, France, Greece, Great Britain, Holland, Ireland, Iceland, Italy, Luxembourg, Norway, Austria, Portugal, Sweden, Switzerland and Spain.


Pulse dialling:

Belgium, France, Holland and Italy.

Also in: Poland, Slovenia, South Africa and Hungary.

Connecting notebook modem to telephone connection

- Connect the modem cable supplied to the country-specific telephone adapter.

Connect the modem cable to the modem port  (see chapter "Notebook views", Number 29) of the notebook.


- Connect the modem cable to your telephone wall socket.



If you attach your modem on a TAE-N-connector the phone respectively data cable is busy. The cable cannot be used for other communication devices at the same time. Pull the modem plug out of the TAE-N-power socket after the data transfer, because also with connected cable no other communication devices can be used.


Ethernet and LAN

The internal LAN module of your notebook supports Ethernet-LAN (10/100 Mbps).

Connect the LAN cable to the notebook's LAN connector  (see chapter "Notebook views", Number 30).

- Connect the network cable to your LAN network connector.

Wireless LAN

Press the Wireless Lan On/Off switch  (see the "Notebook views" section) to enable or disable the notebook's radio component.



For details, see the online help for your wireless LAN software and the "Wireless LAN" manual (the "Wireless LAN" manual is provided on the "Drivers & Utilities" CD).

Pay attention to the additional safety precautions for devices with wireless LAN provided in the "Safety and Ergonomics" manual.

Establishing an infrared connection

The infrared interface (IrDA) (see chapter "Notebook views", Number 19) allows wireless serial data transfer.

- Position the infrared transmitter and infrared receiver such that they have "visual contact".



The devices may be no more than one metre apart. The infrared interface of one device must be in the range of influence (horizontally approx. 30° and vertically approx. 15°) of the infrared interface of the other device.

Security functions

Your notebook enables you to protect your system and personal data in a number of ways against unauthorised access. By combining these options, you can achieve maximum protection for your system.

In this chapter you will learn which security functions your notebook is equipped with, which advantages these functions offer you and how to configure and use them.



Please consider that in the case of improper use, you yourself will also be unable to access your system and your data. Please note therefore the following hints:

- Back up your data on external data carriers at regular intervals.
- Passwords must be assigned for some security functions. Please be sure to note these passwords, as otherwise you will no longer be able to access your system. We recommend that you make a note of the passwords and keep them in a safe place.

If you lose both the user and the admin passwords, you must contact our help desk. The loss of passwords is not a warranty case and is therefore subject to charge.

Overview of all security functions

The following sections contain a brief description of the security functions that are provided with your notebook as standard equipment.

Kensington Lock

With the Kensington MicroSaver, a sturdy steel cable, you can protect your notebook from theft. For this reason your notebook is equipped with a device for the Kensington MicroSaver. The Kensington MicroSaver is available as an accessory.

BIOS password protection

You can protect your personal data from unauthorised access with various passwords. By combining these different options, you can achieve maximum protection for your system.

Password protection for the BIOS Setup Utility

With the supervisor password you prevent unauthorised opening of the *BIOS Setup Utility*, and with it access to important system settings. In the *BIOS Setup Utility* you can also activate protection for the operating system.

Password protection for the operating system

With corresponding settings in the *BIOS Setup Utility* you can block starting of the operating system. Only those who know the supervisor or user password can access the system.

Brief overview of the security functions

Security function	Type of protection	Preparation
Kensington Lock	Mechanical	Mount and lock Kensington MicroSaver (accessory)
BIOS password protection	Password protection for <i>BIOS Setup Utility</i> and operating system with supervisor and user password. The passwords consist of a maximum of six alphanumeric characters.	Specify at least one supervisor password in the <i>BIOS Setup Utility</i> and activate the password protection for the operating system as desired.

Using Kensington Lock

- Fit the Kensington MicroSaver on the device (see chapter "Notebook views" chapter, Number 16) on your notebook.

Configuring password protection in BIOS Setup Utility



Before using the various options of password protection for your data security in the *BIOS Setup Utility*, please note the following hints:

- Please keep in mind your passwords in any case, as you will not be able to access your *BIOS Setup Utility* and/or your system any longer, if you forget both the user password and the supervisor password.
The loss of passwords is not a warranty case and is therefore subject to charge.
- Back up your data on external data carriers at regular intervals.



Passwords can be up to six characters long. You can use all alphanumeric characters and need not distinguish between uppercase and lowercase characters.

Protecting BIOS Setup Utility (supervisor and user password)



If you have opened these operating instructions on the screen, we recommend that you print out the following instructions. Because you cannot call the instructions onto the screen while you are setting up the password.

You prevent unauthorised opening of the *BIOS Setup Utility* with both the supervisor and the user password. With the supervisor password you have access to all functions of the *BIOS Setup Utility*, and with the user password only to part of the functions. You can only set a user password if a supervisor password has already been assigned.



Please refer to section "Settings in BIOS Setup Utility" for a description of calling and operating the *BIOS Setup Utility*.

Set the supervisor and user password

- ▶ Call *BIOS Setup Utility* and select the *Security* menu.
- ▶ Select the *Change Supervisor Password* field and press the enter key.

With *Enter New Password*: you are then requested to enter a password.

- ▶ Enter the password and press the Enter key.

With *Confirm New Supervisor Password* you are asked to confirm the password.

- ▶ Enter the password again and press the Enter key.

With *Password Installed* you receive a confirmation that the new password has been saved.

- ▶ To assign the user password, select the field *Change User Password* and proceed exactly as when configuring the supervisor password.

If you do not want to make any other settings, you can exit *BIOS Setup Utility*.

- ▶ Select the *Save Changes and Exit* field under *Exit*.
- ▶ Press the Enter key.

The notebook is rebooted and the new password is effective. If you now want to open the *BIOS Setup Utility*, you must first enter your supervisor or user password. Please note that you only have access to a few BIOS settings with the user password.

Change supervisor or user password

- ▶ Run the *BIOS Setup Utility* again.
- ▶ When changing the password, proceed exactly as for password assignment.

You can only change the supervisor password when you have logged into the *BIOS Setup Utility* with the supervisor password.

Cancelling passwords

To cancel a password (without setting a new password) run the following steps:

- ▶ Call *BIOS Setup Utility* and select the *Security* menu.
- ▶ Mark the *Change Supervisor Password* or *Change User Password* field and press the Enter key.

With *Enter New Password* you will then be asked to enter a password.

- ▶ Press the Enter key twice.
- ▶ Select the *Save Changes and Exit* field under *Exit*.
- ▶ Press the Enter key.

The notebook is rebooted and the password is cancelled.

With the supervisor password you simultaneously deactivate the user password.

Password protection of operating system



With the supervisor password or the user password, you have assigned in the *BIOS Setup Utility* (see "Set the supervisor and user password" section), you can also prevent booting of the operating system.

Activating system protection

- ▶ Call *BIOS Setup Utility* and select the *Advanced CMOS Setup* menu.
- ▶ Mark the field *Password Check*.
- ▶ Select the entry *Always*.
- ▶ Select the *Save Changes and Exit* field under *Exit*.
- ▶ Press the Enter key.

The notebook reboots and you are asked to enter your password (the supervisor or user password).

Deactivating system protection

- ▶ Call *BIOS Setup Utility* and select the *Advanced CMOS Setup* menu.
- ▶ Mark the field *Password Check*.
- ▶ Select the entry *Setup*.
- ▶ Select the *Save Changes and Exit* field under *Exit*.
- ▶ Press the Enter key.

The notebook reboots and there is no longer any password protection for the operating system.

Connecting external devices



Under all circumstances, please observe the safety notes provided in the "Important notes" chapter.

Read the documentation on the external device before connecting it.

Do not connect or disconnect cables during a thunderstorm.

Do not pull on the cable when disconnecting a cable. Always take hold of the actual plug.

Adhere to the order described in the following when you connect external devices to the notebook or separate them from the notebook:

Connecting devices to notebook

1. Turn off all power and equipment switches.
2. Remove all power plugs from the mains outlets.
3. Connect all the cables to the notebook and the external devices.
4. Plug all data communication cables into the utility sockets.
5. Plug all power cables into the mains supply.

Disconnecting devices from notebook

1. Turn off all power and equipment switches.
2. Remove all power plugs from the mains outlets.
3. Unplug all data communication cables from the utility sockets.
4. Disconnect all the cables from the notebook and the external devices.



Some of the external devices require special drivers (see the operating system and external device documentation).

Connecting an external monitor

An external monitor can be connected to the notebook.

- Using the **[Fn] + [F4]** key combination you can switch back and forth between the external monitor and the LCD screen.
- You can display the same picture on the external monitor and the LCD screen simultaneously.
- ▶ Switch off the notebook and the external monitor.
- ▶ Connect the external monitor to the monitor port (see chapter "Notebook views", Number 18) on your notebook.
- ▶ First switch on the monitor and then the notebook.

Setting the refresh rate for your external monitor

The refresh rate must be correctly set so that the image does not flicker.

- ▶ Select the monitor type in the menu *Start - Control Panel - Appearance and Themes - Display - Settings - Advanced - Display*.
- ▶ Now select the *Adapter* tab.
- ▶ Adjust the refresh rate and then click *Apply*.



If the refresh rate set is too high, the monitor may be damaged. Please see the documentation included with your monitor for the maximum possible refresh rate.

Using the parallel port

- ▶ Switch the notebook off.
- ▶ Connect the data cable of the printer to the parallel port (see chapter "Notebook views", Number 17) on the notebook.
- ▶ Plug the printer power cable into the mains outlet.
- ▶ First switch the printer on, then the notebook.

Connecting USB devices

You can connect external devices to the USB ports (see chapter "Notebook views", Numbers 20, 27 and 28) which also have a USB interface (e.g. a printer, a scanner or a modem).



USB devices are hot-pluggable. This allows cables from USB devices to be connected and disconnected with the system switched on.

USB 1.x has a maximum data transfer rate of 12 Mbit / s.

USB 2.x has a data transfer rate of up to 480 Mbit / s.

Additional information can be found in the documentation for the USB devices.

- ▶ Connect the data cable to the external device.
- ▶ Connect the data cable to a USB port of the notebook.



Device drivers

The devices you connect to the USB ports usually require no driver of their own, as the required software is already included in the operating system. However, if the USB device requires its own software, please install it from the data carrier provided with the USB device.

Connecting external audio devices

SPDIF Out/Headphones socket

Via the SPDIF Out/Headphones socket (see chapter "Notebook views", Number 13) you can connect headphones, external speakers or audio devices with a digital optical output to your notebook.

Line In socket

Via the Line In socket (see chapter "Notebook views", Number 14) you can connect audio devices with an analog output to your notebook.

Microphone jack

Via the microphone port (see chapter "Notebook views", Number 15) you can connect an external microphone to your notebook.

Adjusting the volume

- ▶ To adjust the volume use the Windows volume control from the *Start* menu - *Programs* - *Accessories* - *Multimedia* - *Volume Control*.

Connecting an external device to S-Video Out

You can connect an external device (e.g. a television set) to the S-Video Out socket (see chapter "Notebook views", Number 21) of your notebook.

- ▶ Switch off the notebook and the external device.
- ▶ Connect the external device to the S-Video Out socket of your notebook.
- ▶ First switch the external device on and then the notebook.

Activating television set

- ▶ Select the monitor type in the menu *Start* - *Control Panel* - *Appearance and Themes* - *Display* - *Settings* - *Advanced* - *Displays*.
- ▶ Click on *Apply*.

With the key combination **[Fn] + [F4]** you can switch between the television set and the LCD screen of the notebook.

Connecting an external device to IEEE1394 (FireWire)

Peripheral devices such as digital audio/video devices or other high-speed devices can be connected to the IEEE1394 FireWire port. Your notebook is equipped with a FireWire port, which operates at 400 Mbit per second.

- ▶ Connect the peripheral device to the FireWire port (see chapter "Notebook views", Number 32) of your notebook.

Settings in BIOS Setup Utility

In *BIOS Setup Utility* you can set the system functions and the hardware configuration of the notebook.

When it is delivered, the notebook is set to factory default settings. You can change these settings in *BIOS Setup Utility*. Any changes you make take effect as soon as you save and quit the *BIOS Setup Utility*.

The *BIOS Setup Utility* programme contains the following menus:

<i>Main:</i>	For system settings such as time and date and information about the notebook
<i>Advanced:</i>	For system settings such as interfaces, keyboard and hard disks
<i>Boot:</i>	For specifying the start order
<i>Security:</i>	For security settings such as passwords
<i>Power:</i>	For setting the energy saving functions
<i>Exit:</i>	For saving the changes and terminating the <i>BIOS Setup Utility</i>

Start BIOS Setup Utility

- Restart the notebook (switching ON/OFF or warm boot).

The following or a similar display appears on the screen during booting:

F2: Setup F12: Boot Menu

- When this message appears, press the function key **F2**.



If a password has been assigned:

- Enter the password and press the Enter key.

If you have forgotten the password, contact your system administrator or contact our customer service centre.

Operating BIOS Setup Utility



Press the **F1** key to display help on the operation of *BIOS Setup Utility*. The description of the individual settings is shown in the right-hand window of the *BIOS Setup Utility*.

- ▶ Mark the menu in which you want to make settings with the cursor keys.
- ▶ Press the Enter key.

The menu is displayed on the screen.

- ▶ Use the cursor keys to select the field you wish to change.
- ▶ Change the field entries with the keys **PgUp** or **PgDn**.
- ▶ Press the Enter key to confirm your selection.
- ▶ Press the **Esc** key to exit the selected menu.
- ▶ For future reference, make a note of the changes you have made (for example, in this manual).

Exiting BIOS Setup Utility

You have to mark the desired option in the *Exit* menu and activate it with the enter key.

Save the settings and exit the BIOS Setup Utility - Save Changes and Exit

Select *Save Changes and Exit* and *Yes* to save the current settings and exit the *BIOS Setup Utility*. The device is rebooted and the new settings come into effect.

Reject the changes and exit the BIOS Setup Utility - Exit without Saving

Select *Discard Changes and Exit* and *Yes* to discard the changes you have made. The settings which were in force when *BIOS Setup Utility* was called remain effective. *BIOS Setup Utility* is terminated and the device is rebooted.

Troubleshooting and tips



Take note of the hints in the "Important notes" chapter, when you connect or disconnect cables.

If a fault occurs, try to correct it as described. If you fail to correct the problem, proceed as follows:

- ▶ Make a note of the steps and the circumstances that led to the fault. Also make a note of any error messages displayed.
- ▶ Switch the notebook off.
- ▶ Contact your sales outlet or our hotline/help desk.

Restoring operating system

Using the Windows Recovery CD and the Drivers & Utilities CD, you can restore the operating system of your notebook.

When restoring the operating system the contents of your hard disk will be overwritten. After this, operating system, drivers and software utilities will be reinstalled. For this reason you should try to save important data to a backup medium before you restore the hard disk contents.

- ▶ Insert the Windows Recovery CD into the combo drive.
- ▶ Start the *Setup* programme on the CD.



Detailed PC knowledge is required for manual partitioning.

You must then reinstall all the drivers. Use the "Drivers & Utilities" CD.

The notebook's date or time is incorrect

- ▶ Set the time and/or date in the *BIOS Setup Utility* under *Standard CMOS Setup*.



If the date and time are repeatedly incorrect when you switch on the notebook, the buffer battery that supplies the internal clock is dead.

Connect the notebook via its power adapter to a grounded mains outlet or install a fresh battery. The buffer battery will take approximately two days to complete its recharge. If the problem persists, contact your sales office or our hotline/help desk.

The LCD screen of the notebook remains blank

Monitor is switched off

- ▶ Press a key or enter the password

External monitor or television set connected

- ▶ Press the key combination **[Fn] + [F4]** (selecting internal/external display).

The LCD screen is difficult to read

Reflection

- ▶ Turn the notebook or alter the tilt of the LCD screen.

The external monitor stays blank

If your screen remains blank this may be due to the following:

Monitor is switched off

- ▶ Switch the external monitor on.

Power saving has been activated (screen is blank)

- ▶ Press any key to continue.

Brightness is set too dark

- ▶ Adjust the brightness of the monitor.

Screen output is set to the notebook's LCD screen

- ▶ Press the key combination **[Fn] + [F4]** (selecting internal/external display).

The external monitor's power cable or data cable is not connected properly

- ▶ Switch off the external monitor and the notebook.
- ▶ Check whether the power cable is plugged properly into the external monitor and into the power socket.
- ▶ Check whether the data cable is properly connected to the notebook and the external monitor (if it is plugged in with a connector).
- ▶ Switch on the external monitor and the notebook.

The external monitor is blank or the image is unstable

The wrong external monitor has been selected or the wrong screen resolution has been set for the application programme.

- ▶ Terminate the application programme under Windows with **[Alt] + [F4]**. If the fault continues to occur after ending the programme, switch over to the notebook's internal LCD screen with **[Fn] + [F4]**. Change the following setting:
- ▶ Select the correct monitor or set the correct screen resolution.
 - Setting the screen resolution: Select *Start - Control Panel - Appearance and Themes - Advanced - screen resolution* and then the screen resolution you require.
 - Selecting the monitor: Select the correct monitor under *Start - Control Panel - Appearance and Themes - Display - Settings - Advanced - Display*.

The notebook cannot be started

The battery is not installed correctly

- ▶ Switch the notebook off.
- ▶ Check whether the battery is installed correctly in its compartment.
- ▶ Switch the notebook on.

The battery is dead

- ▶ Charge the battery.
- Or
- ▶ Install a charged battery.
- Or
- ▶ Connect the power adapter to the notebook.

The power adapter is not connected correctly

- ▶ Switch the notebook off.
- ▶ Check whether the power adapter is connected correctly to the notebook.
- ▶ Switch the notebook on.

The notebook stops working

The notebook is in Standby or Suspend mode

- ▶ Reactivate the notebook by pressing a key (Standby mode) or by switching it back on (Suspend mode).

An application programme has caused the malfunction

- ▶ Close the application programme or restart the notebook by switching it on/off or with a warm boot.

The battery is dead

- ▶ Charge the battery.

Or

- ▶ Install a charged battery.

Or

- ▶ Connect the power adapter to the notebook.

The printer does not print

- ▶ Make sure that the printer is switched on and is on-line (see the manuals supplied with the printer).
- ▶ Check that the cable connecting the notebook and the printer is connected properly.
- ▶ Check that the correct printer driver is installed.

The DVD film does not continue to play

Should the picture freeze when playing some DVD films, deactivate the accelerated hardware decryption (it is activated in the default setting; this can be recognised from the checkmark in the corresponding checkbox).

- ▶ Open the drive tray.
- ▶ Place the DVD in the drive tray with the label facing upwards.
- ▶ Push in the drive tray until you feel it lock into place.
- ▶ Wait until the WinDVD starts.
- ▶ Press the right mouse button or touchpad key.

A context menu appears.

- ▶ Click on *Configuration* and then on *Video*.
- ▶ Click on the checkmark in the checkbox of *Hardware Acceleration*.

The checkmark disappears.

- ▶ Click on *OK*.

The function is now deactivated.

Acoustic warnings

A beep sounds every few seconds

The battery is almost flat.

- ▶ Charge the battery.

System configuration contains invalid data

- ▶ Switch the notebook off.
- ▶ Switch the notebook on.
- ▶ Enter the *BIOS Setup Utility* programme by pressing **F2**.
- ▶ Select the *Load Optimal Defaults* entry in the *Exit* menu to restore the default settings.
- ▶ Press the Enter key.
- ▶ Confirm this question with *Yes*.
- ▶ Press the Enter key.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Technical data

Notebook

Processor:	AMD Athlon 64 with PowerNow!™ technology, 2.4 GHz or higher
Main memory:	Maximum of 1 Gbyte DDR266 SDRAM (PC2100) or DDR333 SDRAM (PC2700) 2 slots for 256 or 512-Mbyte modules
Disk drives:	Hard disk drive Optical drive

Electrical data

Regulations complied with:	CE!
Maximum power draw: (notebook on with battery charging)	approx. 160 W

LCD screen

Display diagonal:	15.4 inch WXGA TFT 15.4 inch WSXGA TFT
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Graphics

Chip:	ATI MOBILITY RADEON 9700
Video memory:	128 MB
Supported resolutions on external monitor:	1600 x 1200
Colour depth:	32 bit

Audio

Sound:	16-bit stereo audio (AC'97)
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Input devices

Keyboard:	88 keys
Touchpad:	4 keys

Slots

PC Card slot (CardBus/PCMCIA):	PCMCIA 1 x Type I or II
Memory card reader	Flash Card Port SD/MS/MMC

Technical data

Ports

Monitor port:	15-pin female connector
Microphone jack:	connector, mono
Line In	connector, stereo
SPDIF Out/Headphones socket	connector, stereo, digital
Video port:	4-pin mini DIN female connector
USB port (Universal Serial Bus):	3x 2.0
LAN connector:	Female connector, RJ-45
Modem port:	Female connector, RJ-11
FireWire port:	S400, 4-pin
Parallel port:	25-pin female connector, bi-directional, ECP capable
Infrared interface:	Fast IrDA 4Mbps/s
Kensington Lock	

Environmental conditions

Environment class 7K1	
Environment class 7M2	
Temperature	
Operation (7K1):	5 °C 35 °C
Transport (2K2):	-15 °C 60 °C

Dimensions

Width/depth/height:	358 mm, 269 mm, 35.8 mm
Weight (depending on configuration):	approx. 3.5 kg

Battery

Charging time (when not in operation):	approx. 3 hours
Operating time	approx. 1.5 hours (depending on application)

Power adapter 160 W

Primary	
• Rated voltage:	100 V to 240 V (automatic)
• Frequency:	50 Hz to 60 Hz (automatic)
• Max. rated current:	1.6 A
Secondary	
• Rated voltage:	20 V
• Max. rated current:	8 A

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